which cannot be foreseen, depending as it does on the greater or less extent to which the annual floods reach the forests, or, at times, never touching them at all, when the river recedes and leaves them high and dry. In a couple of forests, the grazing having been found undoubtedly to have become worse, a lower scale of fees was charged in them on a representation to that effect having been made by the cattle owners and villagers living in their vicinity.

(*b*) **Protection from Cattle.**

Area opened and closed to grazing.

72. Form No. 54 gives the areas closed and open to grazing during the year 1896-97, which, as compared with those of the year before, show that against all animals the area of closures has risen from $79\frac{199}{640}$ to $108\frac{168}{640}$ square miles, and that against browsers from $167\frac{607}{640}$ to $373\frac{435}{640}$ square miles. The areas given in column 3 of Form No. 54 for both years ($19\frac{127}{640}$ and $22\frac{267}{640}$, respectively), it has to be noted, are temporary punitive closures for the prevention of forest fires, the object being to keep out cattle of the incendiary *maldars* from grazing on the fresh and nutritious crop of grass which springs up almost at once in the fired tracts, and thereby defeating the very purpose they have in view.

73. The extent of the closures in each division at the commencement and close of the year, with other details, is given in the following statement :—

Division.	AREA IN SQUARE MILES.								Total area of Reserved Forests.	Percentage of total area closed.
	Closed at commencement of the year.		Opened during the year.		New closures of the year.		Closed at the end of the year.			
	Whole year	Part of year.	Whole year.	Part of year.	Whole year.	Part of year.	Whole year.	Part of year.		
					All animals.					
Sukkur	17 359	12 148	...	7 552	16 299	18 31	34 18	22 267	449 358	12
Naushahro ...	7 382	...	3 354	...	6 85	...	10 113	...	245 0	4
Hyderabad ...	22 153	...	...	...	7 145	...	29 298	...	185 577	16
Jerruck ...	12 19	...	4 245	...	4 338	...	12 112	...	183 346	7
Total ...	59 273	12 148	7 599	7 552	34 227	18 31	85 541	22 267	1,064 1	10
					Browsers.					
Sukkur	1 262	80 467	...	...	142 597	...	225 46	...	449 358	50
Naushahro ...	42 413	...	1 160	...	58 227	...	99 480	...	245 0	41
Hyderabad ...	43 39	...	3 411	3 80	...	...	36 188	...	185 577	19
Jerruck ...	...	...	...	...	12 361	...	12 361	...	183 346	7
Total ...	87 74	80 467	4 571	3 80	213 545	...	373 435	...	1,064 1	35

74. Cultural operations having been undertaken on a larger scale than before not only in the felled coupes of the year, but in blanks both in the Sukkur and Naushahro Divisions, it naturally follows that the area closed to all animals must be greater. At the same time, it will be noticed that, in accordance with the instructions quoted in paragraph 62 of the report for 1894-95, an aggregate area of $12\frac{53}{64}$ square miles, in which reproduction was assured and the further prohibition of grazing wherein would simply be a source of annoyance to the villagers, was re-opened. The almost irretrievable damage which is being committed by browsers in Upper and Central Sind had, moreover, to be checked. Hence, the increase in the area closed to such animals.

Impoundings of cattle.

75. The number of cattle impounded during the year under report and the year before in open and closed forests is given below :—

Division.	From open forests.		From closed forests.		Total.	
	1895-96.	1896-97.	1895-96.	1896-97.	1895-96.	1896-97.
	No.	No.	No.	No.	No.	No.
Sukkur	5,465	7,025	3,856	9,734	9,321	16,759
Naushahro	2,630	1,703	3,905	5,268	6,535	6,971
Hyderabad	2,670	1,716	6,082	7,583	8,752	9,299
Jerruck	804	923	3,427	3,507	4,231	4,430
Total ...	11,569	11,367	17,270	26,092	28,839	37,459

76. The impoundings for the whole Circle from open forests vary but little, the larger number in the Sukkur and Jerruck Divisions being nearly counterbalanced by the smaller

number in the other two. In the latter, it has been already stated (paragraph 60) that the graziers appear to have realised that the chances of escaping detection were so limited, owing to the vigilance of the subordinates, that they took out grazing permits before driving their cattle into the forests instead of running the risk of paying the fines in addition. The cause of the increase under closed forests will be found explained in paragraph 78.

77. The following statement shows the number of cattle of different kinds impounded in the several divisions during the year :—

Division.	Kind of area.	Cows and Bullocks.	Buffaloes.	Camels.	Horses.	Asses.	Goats and Sheep.	Total from	
								Open.	Closed.
		No.	No.	No.	No.	No.	No.	No.	No.
Sukkur ...	Open ...	1,899	1,063	386	49	53	3,575	7,025	...
	Closed ...	1,626	1,192	434	36	60	6,386	...	9,734
Naushahro ...	Open ...	402	190	166	8	92	845	1,703	...
	Closed ...	1,802	773	496	54	47	2,096	...	5,268
Hyderabad ...	Open ...	256	136	157	...	3	1,164	1,716	...
	Closed ...	2,217	683	770	...	20	3,893	...	7,583
Jerruck ...	Open ...	406	206	41	5	2	263	923	...
	Closed ...	1,310	521	524	17	33	1,102	...	3,507
Total ...	Open ...	2,963	1,595	750	62	150	5,847	11,367	...
	Closed ...	6,955	3,169	2,224	107	160	13,477	...	26,092

78. Increased trespass by browsers was to be expected, following, as it did, the necessity of excluding these pests to forest conservancy from a larger area. The total of all kinds of animals captured in closed blocks amounts to 26,092 head, while browsers alone to 15,701, whereas the figures for the previous year shown in the statement under paragraph 78 are, respectively, 17,270 and 7,388.

The information required under paragraph 5 of Government Resolution No. 8265, dated 21st October 1896, is given below :—

Division.	Number of animals captured in closed blocks.	Number of animals covered by passes for open forest.
Sukkur	9,734	3,204
Naushahro ...	5,268	3,068
Hyderabad ...	7,583	3,051
Jerruck	3,507	1,204
Total ...	26,092	10,527

79. In connection with the matter of impoundings, the following remarks may be found interesting.

There are *maldars* in almost every range who defy the subordinates and indulge in illicit grazing, principally at night, and keep their animals tethered in the day in the densest parts of the forest. To catch them is by no means an easy task, as their owners are daring and do not hesitate to use criminal force when interfered with. The Range Forest Officers and Forest Guards now and then go prepared to resist intimidation of this sort, and sometimes succeed in effecting seizures, but even then the cattle owners refuse to compound the offence and register their cattle, and prefer to be mulcted in Pound fees, which are heavier than the fines imposed under the departmental rules. The reason for this is not far to seek, as most of them are either professional cattle-lifters themselves or are harbourers of stolen cattle. The former have no fixed place of abode, and leave one forest directly the Police or Forest officers are on their track to go to another, perhaps across, or many miles down, the river, especially

if the stolen animals are buffaloes, as they can swim for hours with the current when properly led, in order that their whereabouts may not be discovered; whereas the latter, I noticed during my tour, not unfrequently take up their abode in the densest part of the forests in defiance of all previous orders. It was, therefore, necessary to call the attention of the Divisional Forest Officers as well as their subordinates in a special circular quoted below to mitigate the evil caused by such miscreants finding shelter in the forests:—

"Notwithstanding the orders not to allow cattle-breeders and professional graziers to squat in such localities as are not easily accessible, the Conservator noticed with regret during his inspection that cattle-sheds had, in some instances, been suffered to be constructed in the heart of dense jungle within forest limits. As the forests are apt to harbour cattle-thieves and other bad characters, Divisional Forest Officers are requested to see that the orders given below are strictly carried out in future, and to report for the orders of the Conservator all cases in which there are reasonable grounds for believing that they have been set at defiance by collusion with Forest subordinates:

1. No one should be permitted to reside within forest limits without having previously obtained the written permission of the Range Forest Officer.

2. The permission so given should be immediately communicated to the Divisional Forest Officer.

3. Suitable sites for *maldars* now living on the borders of rides, on the banks of *dhands*, or on the edge of forests should be selected by Range Forest Officers, and, on their being approved, should be marked off and fenced in.

4. If a new site is required by a *maldar*, he should not be permitted to squat thereon until the site has been approved of by the Divisional Forest Officer and enclosed by a hedge by the intended settler, after being demarcated by the Range Forest Officer.

5. Squatters living in any site not approved of and marked off as aforesaid should be at once turned out of the forest, and, if necessary, the aid of the Police should be sought for this purpose.

6. The selection of sites should be carefully performed, and they should be neither too many in number nor too far between. Arrangements should be made to so locate them as can easily admit of a good number of the graziers settling at one place, instead of being scattered throughout the length and breadth of the forest.

7. The extent of a site chosen should be restricted to five acres. This limit should neither be exceeded nor reduced, except under special circumstances, which should be reported to the undersigned, and no two of them should on any account be more than a mile apart.

8. A register in the accompanying form should be kept by all Range Forest Officers, in which all settlements which have been duly approved of and sanctioned by Divisional Forest Officers should be entered.

9. From this register, a quarterly list of such settlements should be prepared and submitted by Range Forest Officers to their respective Divisional Forest Officers, who should on receipt of the same forward for the information of the District Magistrate and the Superintendent of Police extracts therefrom appertaining to the forests coming within their respective jurisdictions.

10. The squatters should be made to clearly understand that their residence within forest limits is subject to the pleasure of the Department during their good behaviour, and if at any time it is discovered that their presence is intolerable, or is otherwise deemed to be injurious to forest conservancy, their summary eviction from the land will inevitably follow.

11. Divisional Forest Officers when out on inspection duty should make it a point to have at hand the last list in their office, and personally verify the accuracy of the entries in it.

12. As soon as the work of selection is completed in accordance with the foregoing orders, Divisional Forest Officers will have the sites so approved of, as also those that may be fixed upon subsequently, marked on the maps in their and Range Forest offices.

13. Care should be taken to see that *maldars*, etc., are not harrassed, or made to shift from place to place by Police or Forest subordinates, for purposes of their own."